

# Comparisons of Job Characteristics

**Focus Occupation:** Architectural and Civil Drafters (17-3011)

**Associated Occupation:** Civil Engineers (17-2051)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

**Focus Occupation:** Architectural and Civil Drafters (17-3011)

**Associated Occupation:** Civil Engineers (17-2051)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Engineering and Technology	5.7	24.5	15.2	<<	Extensive education and/or training may be required
Design	5.2	23.4	21.0	<	Expanded education and/or training may be required
Building and Construction	4.0	21.6	15.5	<<	Extensive education and/or training may be required
Mathematics	9.2	20.0	13.3	<<	Extensive education and/or training may be required
Physics	4.3	15.8	6.5	<<	Extensive education and/or training may be required
Transportation	4.6	13.9	4.2	<<	Extensive education and/or training may be required
Administration and Management	8.4	13.0	5.4	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	12.6	7.3	<<	Extensive education and/or training may be required
Law and Government	5.9	11.3	8.0	<<	Extensive education and/or training may be required
Chemistry	4.8	10.8	3.1	<<	Extensive education and/or training may be required
Geography	3.9	9.7	7.9	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 89

**Focus Occupation:** Architectural and Civil Drafters (17-3011)

**Associated Occupation:** Civil Engineers (17-2051)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematics	6.2	15.7	11.0	<<	Extensive development of skills in this area may be required
Operations Analysis	5.0	14.6	8.0	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	14.5	9.3	<<	Extensive development of skills in this area may be required
Judgment and Decision Making	9.4	14.5	9.4	<<	Extensive development of skills in this area may be required
Science	4.5	11.9	4.6	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	11.7	8.3	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	11.7	7.1	<<	Extensive development of skills in this area may be required
Management of Personnel Resources	6.9	11.2	7.1	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	9.1	4.6	<<	Extensive development of skills in this area may be required
Management of Financial Resources	3.3	8.9	4.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 94			
Focus Occupation: Architectural and Civil Drafters (17-3011) Associated Occupation: Civil Engineers (17-2051)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Problem Sensitivity	11.1	15.4	11.5	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	15.2	10.6	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	14.9	10.1	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	14.4	10.3	<<	Extensive improvement in abilities may be required
Visualization	7.5	14.1	12.5	<	Some improvement in abilities may be required
Number Facility	6.3	13.9	8.5	<<	Extensive improvement in abilities may be required
Information Ordering	9.9	13.8	11.5	<	Some improvement in abilities may be required
Category Flexibility	9.0	13.4	10.1	<<	Extensive improvement in abilities may be required
Flexibility of Closure	7.8	13.3	9.4	<<	Extensive improvement in abilities may be required
Perceptual Speed	7.4	11.8	7.6	<<	Extensive improvement in abilities may be required
Speed of Closure	5.9	9.9	5.9	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 88

**Focus Occupation: Architectural and Civil Drafters (17-3011)**  
**Associated Occupation: Civil Engineers (17-2051)**

Work Activities	Exclusivity of Activity
Analyze technical data, designs, or preliminary specifications	47
Collect scientific or technical data	30
Communicate technical information	4
Create mathematical or statistical diagrams or charts	43
Develop plans for programs or projects	31
Direct and coordinate activities of workers or staff	3
Draw maps or charts	69
Draw prototypes, plans, or maps to scale	57
Evaluate engineering data	60
Examine engineering documents for completeness or accuracy	62
Inspect project operations, or site to determine specification compliance	72
Interpret aerial photographs	69
Interpret maps for architecture, construction, or engineering project	77
Prepare technical reports or related documentation	22
Read blueprints	10
Read technical drawings	7
Understand construction specifications	53
Understand engineering data or reports	48
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use computers to enter, access or retrieve data	3
Use drafting or mechanical drawing techniques	50
Use field notes in technical drawings	78
Use land surveying techniques	80
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write business project or bid proposals	48

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 84

**Focus Occupation: Architectural and Civil Drafters (17-3011)**  
**Associated Occupation: Civil Engineers (17-2051)**

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Drafting supplies	9
Industry specific software	1
Information exchange software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.